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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/971,024	10/05/2001	Yasuhiko Tanaka	KP-9182	3754

466 7590 04/09/2003

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EXAMINER

JONES, JUDSON

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/971,024

Applicant(s)

TANAKA, YASUHIKO

Examiner

Judson H Jones

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1001.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. in view of Tanabe. Yamada et al. discloses the motor with a first spur gear 51, an idle gear 54 and a second spur gear/impeller combination 55 with a photo sensor 57 as shown in figure 3 and as described in column 6 lines 6-21 but does not disclose a worm gear fixed to the rotary shaft of the motor. Tanabe teaches in figure 1 and in column 7 lines 62-67 that a worm gear can be used to change the axis of rotation of a drive means. Since Tanabe and Yamada et al. are from the same field of endeavor it would have been obvious at the time the invention was made for one of ordinary skill in the art to have utilized a worm gear to change the axis of rotation of a drive means for a camera casing where there was more room to attach two spur gears, an idle gear and an impeller in a plane parallel to the axis of the motor.

In regard to claim 2, see Tanabe column 7 lines 62-67 which teaches forming a worm gear integrally with a spur gear.

In regard to claim 3, see Tanabe figure 17.

In regard to claim 4, see Yamada et al. column 6 lines 10-28 where the spur gear and impeller are both given the number 55. See also Yamada et al. column 6 lines 6-8 where the

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motor shaft 32 is described as being integrally formed with pinion gear 50. Forming small parts integrally whenever possible reduces assembly time and reduces possible errors in assembly.

Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. as modified by Tanabe as applied to claim 4 above, and further in view of Hoffman 6,255,751 B1. Yamada et al. as modified by Tanabe discloses the motor actuation device but does not disclose the first and second spur gear having the same number of teeth. Yamada et al. in column 6 lines 23-26 does state, "The rotation of impeller 55, and the number of pulses produced by photo-interrupter 57, correspond exactly to the distance over which the focusing lens is moved during focusing." Hoffman teaches in column 1 lines, "Gear reducer 16 receives as input pinion 10 and is selected to produce the desired output torque and rotational speed at shaft 20." Since Hoffman and Yamada et al. as modified by Tanabe are both from the same field of endeavor, it would have been obvious at the time the invention was made for one of ordinary skill in the art to have utilized the desired rotational speed of the impeller as a design variable for choosing the number of teeth on a spur gear formed integrally with the impeller. Furthermore, it would have been obvious at the time the invention was made for one of ordinary skill in the art to have chosen first and second spur gears with the same number of teeth in a design where the same number of teeth would have produced the desired impeller pulse output.

In regard to claim 6, see Yamada et al. column 6 line 24.

In regard to claim 7, see Tanabe column 7 lines 62-27.

In regard to claim 8, see Tanabe figure 17.

In regard to claim 9, see Yamada et al. column 6 lines 29-32.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judson H Jones whose telephone number is 703-308-0115. The examiner can normally be reached on 8-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3431 for regular communications and 703-305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

JHJ 
March 29, 2003


NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
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